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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/626,360

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EXAMINER

HUFFMAN, JULIAN D

ART UNIT

PAPER NUMBER

2853

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/626,360

Applicant(s)

ROYLANCE ET AL.

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 17, 18, 21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 17, 18, 21 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-14, 17, 18 and 21 are objected to because of the following informalities:

Due to the language "wherein at least one image enhancement data set includes *one or more of the following*" used in the claims, both occurrences of the language "the two or more image enhancement techniques" lack antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-14, 17, 18 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Okano et al.

Okano et al. discloses:

With regards to claim 1, a computer readable medium (fig. 3, element 13) integrated into a removable cartridge (fig. 3, element 100) for an image forming device, the medium being programmed with a plurality of image enhancement data sets

(correction table value) and data set selection criteria for selecting from among the image enhancement data sets (VL, SD, number of image formation, 0093, 0094), wherein at least one image enhancement data set includes one or more of the following:

- data identifying two or more image enhancement techniques (each data set provides data identifying an image density, which is an image enhancement technique, there are plural data sets, which reads on the language at least one data set);

- one or more parameters for implementing the two or more image enhancement techniques (density correction value table stores data used to implement the image enhancement technique), and

- selection criteria for selecting from among the two or more image enhancement techniques (number of image formation is stored to select the image enhancement technique).

With regards to claim 2, at least one image enhancement data set includes a condition (number of image formation) associated with data identifying an image enhancement technique (number of image formation is used to identify an image enhancement technique using table, 0093 and 0094) and a parameter for implementing the image enhancement technique (density correction table stores data used to implement the image enhancement technique).

With regards to claim 3, at least one image enhancement data set includes a condition (number of image formation) associated with a parameter (density table) for implementing an image enhancement technique.

With regards to claim 4, the removable cartridge includes a printing component (1, 2, 5, or 6), and the medium is formatted to store a state variable (0095) reflecting a

state of the printing component and wherein the data set selection criteria represents electronic data that can be processed with the state variable to select from among the image enhancement data sets (VL, SD data).

With regards to claim 5, a computer readable medium (13) integrated into a removable cartridge (100) that includes a printing component (1, 2, 5, 6) for an image forming device, the medium being formatted to store a state variable (number of image formation) reflecting a state of the printing component and programmed with a plurality of image enhancement data sets (correction value table) and data set selection criteria that can be processed with the state variable to select from among the image enhancement data sets (0093, 0094), wherein at least one image enhancement data set includes one or more of the following:

- data identifying two or more image enhancement techniques (each data set provides data identifying an image density, which is an image enhancement technique, there are plural data sets, which reads on the language at least one data set);

- one or more parameters for implementing the two or more image enhancement techniques (density correction value table stores data used to implement the image enhancement technique), and

- selection criteria for selecting from among the two or more image enhancement techniques (number of image formation is stored to select the image enhancement technique).

With regards to claims 6 and 10, a removable cartridge (100) for an image forming device, comprising:

- a printing component (1, 2, 5, 6) that can be utilized by the image forming device to assist in producing a printed image; and

a memory (13) formatted to store a state variable (number of image formation) reflecting a state (number of image formation) of the printing component and programmed with a plurality of image enhancement data sets (correction value table) and data set selection criteria that can be processed with the state variable to select from among the image enhancement data sets (0093, 0094, VL, SD), wherein at least one image enhancement data set includes one or more of the following:

data identifying two or more image enhancement techniques (each data set provides data identifying an image density, which is an image enhancement technique, there are plural data sets, which reads on the language at least one data set);

one or more parameters for implementing the two or more image enhancement techniques (density correction value table stores data used to implement the image enhancement technique), and

selection criteria for selecting from among the two or more image enhancement techniques (number of image formation is stored to select the image enhancement technique).

With regards to claim 11, an image enhancement method, comprising the following acts:

obtaining data set selection criteria from a memory integrated into a removable cartridge for an image forming device (0093, 0094);

processing the data set selection criteria to select an image enhancement data set from a plurality of image enhancement data sets contained in the memory integrated into the removable cartridge (0093, 0094); and

implementing an image enhancement technique according to the selected image enhancement data set (0098),

wherein at least one image enhancement data set includes one or more of the following:

data identifying two or more image enhancement techniques (each data set provides data identifying an image density, which is an image enhancement technique, there are plural data sets, which reads on the language at least one data set);

one or more parameters for implementing the two or more image enhancement techniques (density correction value table stores data used to implement the image enhancement technique), and

selection criteria for selecting from among the two or more image enhancement techniques (number of image formation is stored to select the image enhancement technique).

With regards to claim 12, that the selected image enhancement data set includes data identifying the image enhancement technique (density correction) and wherein the act of implementing the image enhancement technique further includes implementing the image enhancement technique identified by the image enhancement data set (0098).

With regards to claim 13, that the selected image enhancement data set includes a parameter (number of image formation, VL, SD, 0093, 0094) and the act of implementing comprises implementing the image enhancement technique according to the parameter (0098).

With regards to claim 14, obtaining a state variable reflecting a state of a printing component (number of image formation) and wherein the act of processing comprises processing the data set selection criteria with the state variable to select the image

enhancement data set from among the plurality of image enhancement data sets (0093, 0094).

With regards to claim 17, a computer readable medium (element 11 has programming instructions to control its operation) having instructions for:

obtaining data set selection criteria to select an image enhancement data set from a plurality of image enhancement data sets contained in the memory integrated into the removable cartridge (0093, 0094); and

implementing an image enhancement technique identified by the selected image enhancement data set (0098),

wherein at least one image enhancement data set includes one or more of the following:

data identifying two or more image enhancement techniques (each data set provides data identifying an image density, which is an image enhancement technique, there are plural data sets, which reads on the language at least one data set);

one or more parameters for implementing the two or more image enhancement techniques (density correction value table stores data used to implement the image enhancement technique), and

selection criteria for selecting from among the two or more image enhancement techniques (number of image formation is stored to select the image enhancement technique).

With regards to claim 18, that the selected image enhancement data set includes a parameter (VL, SD, number of image formation) and the instructions for implementing include instructions for implementing the image enhancement technique according to the parameter (0093, 0094).

With regards to claim 19, that the medium has further instructions for obtaining a state variable reflecting a state of a printing component (0095) and wherein the instructions for selecting include instructions for selecting a image enhancement data set according to the state variable (0094).

With regards to claim 21, further instructions for obtaining a state variable reflecting a state of a printing component and wherein the instructions for processing include instructions for processing the data set selection criteria with the state variable to select the image enhancement data set from among the plurality of image enhancement data sets (0093, 0094).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okano in view of Hilton et al.

Okano discloses an image enhancement system for an image forming device, comprising a device memory storing execution logic configured to implement cartridge image enhancement data (11), the cartridge image enhancement data being programmed on a computer readable medium (13) integrated into a removable cartridge for the image forming device.

Okano does not disclose a device memory storing default image enhancement data and that if the cartridge image enhancement data is not present, the execution logic is configured to implement the default image enhancement data.

Hilton et al. discloses an image enhancement system for an image forming device, comprising:

a device memory (fig. 5, element 10) storing default image enhancement data (column 9, lines 61-67), and execution logic (column 9, lines 50-54) configured to determine if cartridge image enhancement data is present and implementing the cartridge image enhancement data, and if the cartridge image enhancement data is not present, the execution logic is configured to implement the default image enhancement data (column 9 line 39-column 10, line 10, figs. 6-9).

It would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teachings of Hilton into Okano and provide the default image enhancement data and execution logic configured to implement the default image enhancement data if cartridge image enhancement data is not present for the purpose of enabling the device to use non-qualified cartridges (column 2, lines 46-53).

Response to Arguments

6. Applicant's argument that Okano does not disclose that its' correction value table includes a plurality of image enhancement data sets where at least one of those data sets includes data identifying two or more image enhancement techniques, one or more parameters for implementing the two or more image enhancement techniques, and/or selection criteria for selecting among the two or more image enhancement techniques is noted. Applicant has stated in the specification that the image enhancement data sets

“each represent generally any data used for image enhancement”. Okano discloses storing in a table (fig. 3) density correction values. Clearly, since the table stores values correct density, the values each represent data used for image enhancement. Okano also discloses that *at least one* data set includes data identifying two or more image enhancement data sets. Since Okano discloses plural correction values, which are analogous to applicant’s one or more data sets, and these plural correction values store two or more image enhancement techniques, one for each correction value stored, Okano discloses this limitation. Okano further discloses the parameters and correction criteria, as outlined in the rejection above.

Applicant’s argument that Okano does not disclose the cartridge integrated medium programmed with data set selection criteria that can be processed with a state variable to select among image enhancement data sets is noted. However, in Okano, data is at least shown in fig. 3 as a count of the number of image formations and this state variable data is processed by data set selection criteria to select an appropriate enhancement technique based on the state of the printer.

Applicant’s argument regarding claim 22 is moot in view of the new grounds of rejection.

Conclusion

7. Applicant’s amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within


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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Julian D. Huffman
30 December 2005


K. FEZZINS
PRIMARY EXAMINER

1/04